

REMARKS

I. Status of the Claims

Claims 1, 2, 5, 6, 13, 14, 17, 24, 25, 31, 34, 49, 50, 51, 53, and 54 are pending in this application. Claims 3-4, 7-12, 15-16, 18-23, 26-30, 32-33, 35-48, and 52 have been canceled. Applicants reserve the right to pursue this subject matter in an application claiming priority to the present application. Claims 34, 53, and 54 are allowed. Claims 1, 2, 5, 13, 14, 24, 25, 31, and 49 stand rejected. Claims 6, 17, 50, and 51 are objected to.

Applicants respectfully traverse the priority analysis outlined in the Action. However, solely to expedite the prosecution of the instant application, claim 1 has been amended for clarity and to delete the species “a bond” from the variable B in the backbone of the 7-membered ring portion of R₂. The B moiety that forms part of the D moiety is now recited separately. Support for this amendment may be found through the claims and specification as originally filed, for example, in the original claim 1, reciting that B can be selected independently for each occurrence. Claim 25 has been amended solely to correct a typographical error. No new matter has been introduced by these amendments.

Amendment of the originally filed claims, or cancellation of any claims should in no way be construed as an acquiescence, narrowing, or surrender of any subject matter. The amendments are being made not only to point out with particularity and to claim the present invention, but also to expedite prosecution of the present application. Applicants reserve the option to prosecute the originally filed claims further, or similar ones, in the instant or subsequently filed patent applications.

II. Rejections under 35 U.S.C. § 102

Claims 1, 24, 25, 31, and 49 have been rejected under 35 U.S.C. § 102(b), as being anticipated by Adrianjara et al. (WO 2002/064572). *Office Action* at p. 3.

Applicants note that Adrianjara teaches compounds having a dihydropyridopyrimidine ring at the R₂ position of presently claimed formula I, and as the Action indicates, where “B is a bond.” Claim 1 has been amended remove the “bond” moiety in recitation of the B variable in the backbone of the claimed 7 membered ring that forms part of the fused core. Therefore, Adrianjara’s 6,6-fused ring system does not fall within the scope of amended claim 1 which requires a 6,7-fused ring system at R₂. Thus, Applicants submit that Adrianjara fails to anticipate the present claims, and respectfully requests withdrawal of this rejection.

Claims 1, 2, 5, 24, 25, 31, and 49 have been rejected under 35 U.S.C. § 102(b), as being anticipated by Miller et al. (WO 2001/027103). *Office Action* at p. 3.

Miller teaches a compound 9 having a 6,6-fused dihydronaphthyridinone ring system at the R₂ position of presently claimed formula I. *Miller* at p. 15. Amended claim 1 now requires a 6,7-fused ring system at R₂. Thus, Applicants submit that Miller fails to anticipate the present claims, and respectfully requests withdrawal of this rejection.

Claims 1, 2, 5, 13, 14, 24, 25, 31, and 49 have been rejected under 35 U.S.C. § 102(e), as being anticipated by Berman et al. (US 2006/0142265). *Office Action* at p. 3.

Berman teaches a compound 4 having a 6,6-fused dihydropyridopyrimidine ring at the R₂ position of presently claimed formula I. *Berman* at p. 39. Amended claim 1 now requires a 6,7-fused ring system at R₂. Berman’s compound 4 does not fall within the scope of amended claim 1, which requires a 6,7-fused ring system at R₂. Thus, Applicants submit that Miller fails to anticipate the present claims, and respectfully request withdrawal of this rejection.

Claims 1, 24, 25, 31, and 49 have been rejected under 35 U.S.C. § 102(e), as being anticipated by Nahra et al. (WO 2004/014869). *Office Action* at p. 4.

Nahra teaches examples 26-28 having a 6,6-fused dihydropyridopyrimidine ring at the R₂ position of presently claimed formula I. *Nahra* at p. 153. Nahra’s examples 26-28 do not fall

within the scope of amended claim 1, which requires a 6,7-fused ring system at R₂. Thus, Applicants submit that Miller fails to anticipate the present claims, and respectfully request withdrawal of this rejection.

III. Rejection under 35 U.S.C. § 103

Claim 1 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Sladowska et al. *Famaco Edizione Scientifica* 1986 41(12): 954-963. *Office Action* at p. 5.

Sladowska teaches a compound XIX having a dihydropyridopyrimidine at the R₂ position of presently claimed formula I and a method of synthesis. *Sladowska* at p. 956. Sladowska's 6,6-fused ring system does not teach or suggest a 6,7-fused ring system at R₂ as presently claimed. One of ordinary skill in the art would readily appreciate that different synthetic routes are required to access the claimed 6,7-fused ring system. Furthermore, Sladowska teaches compounds that are potentiators of DOPA central activity. *Id.* at p. 954. As the Examiner knows, an obviousness argument based on structural similarity depends on a preliminary finding that one of ordinary skill would have selected the prior art compound as a lead compound. *See Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1357 (Fed. Circ. 2007) (finding that, under KSR, "it remains necessary to identify some reason that would have led a chemist to modify a known compound in a particular manner to establish *prima facie* obviousness of a new claimed compound.") There is no teaching in the Sladowska that would lead one of ordinary skill in the art to identify compound XIX as a "lead compound" of the genus of claim 1. In fact, Sladowska does not appear to have selected this compound for pharmacological screening. *See Sladowska* at 938. Applicants claim a different core structure with different activity than Sladowska. Thus, Applicants submit that Sladowska does not render claim 1 obvious. Accordingly, Applicants respectfully request withdrawal of this rejection.

IV. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Any questions raised by this submission may be directed to the undersigned at (617) 570-3914. In accordance with 37 C.F.R. § 1.136(a), please grant any extension of time that this paper requires but no accompanying paper requests.

The Commissioner is hereby authorized to charge any underpayments, or credit any overpayments, to our Deposit Account No. 07-1700, **Reference: IPT-075**.

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Respectfully submitted,

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